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ELECTRONIC THESIS AND DISSERTATION UNSYIAH

TITLE

DAYA HAMBAT LEMPUYANG GAJAH (ZINGIBER ZERUMBET) TERHADAP ESCHERICHIA COLI DAN PENGARUHNYA TERHADAP KOLESTEROL DAGING SERTAN PERSENTASE LEMAK ABDOMEN AYAM RAS PETELUR JANTAN

ABSTRACT

Abstrak. Penelitian ini bertujuan untuk mengetahui daya hambat lempuyang gajah terhadap bakteri *Escherichia coli* dan pengaruh penambahannya dalam air minum terhadap kolesterol daging serta persentase lemak abdomen ayam ras petelur jantan. Penelitian ini dilaksanakan di Peternakan Rakyat, Lambaro Skep depan Pesantren Insyafuddin. Lorong Taqwa no. 6 Banda Aceh. Penelitian ini berlangsung selama 49 hari, hari pertama sampai dengan umur 49 hari, semua ayam mendapat perlakuan yang diujikan. Penelitian ini dimulai dari tanggal 1 Mei sampai dengan 19 Juni 2018. Penelitian ini menggunakan 100 ekor anak ayam petelur jantan (kalasan) strain Isa Brown produksi PT. Charoen Pokphand. Rancangan yang digunakan adalah Rancangan Acak Lengkap (RAL) secara in vitro terdiri dari 4 perlakuan dan 3 ulangan. Sedangkan secara in vivo terdiri dari 4 perlakuan dan 5 ulangan. Perlakuan in vitro yang dicobakan adalah penambahan sari lempuyang gajah sebanyak (P1) 3%, (P2) 6%, (P3) 9% dari 1 ml sari lempuyang gajah. Perlakuan secara in vivo yang dicobakan adalah penambahan sari rimpang lempuyang gajah sebanyak (P1) 3%, (P2) 6%, (P3) 9% dari total jumlah air minum. Data dianalisis dengan menggunakan Analysis of Variance (ANOVA) dan jika diantara perlakuan terdapat perbedaan yang nyata, analisis dilanjutkan dengan Uji Jarak Berganda Duncan (Steel dan Torrie, 1991). Parameter yang diamati adalah daya hambat lempuyang gajah terhadap bakteri *Escherichia coli*, Kolesterol daging dan persentase lemak abdomen. Hasil penelitian memperlihatkan bahwa pemberian sari lempuyang gajah (*Zingiber zerumbet*) tidak berpengaruh nyata ($P>0,05$) terhadap pertumbuhan bakteri *Escherichia coli* dan tidak berpengaruh nyata ($P>0,05$) sebagai feed additive pada air minum terhadap persentase lemak abdomen ayam ras petelur jantan. Namun secara deskriptif dapat menurunkan kadar kolesterol daging ayam ras petelur jantan.

Kata kunci : lempuyang gajah, imbuhan pakan, daya hambat, kolesterol, lemak abdomen, ayam ras petelur jantan

Abstract. This study aimed was to determine the inhibitory power of elephant ginger rhizome on *Escherichia coli* bacteria and the effect of adding them to drinking water on meat cholesterol and the percentage of abdominal fat in male laying hens.. This research was carried out at the People's Farm, Lambaro Skep in front of the Insyafuddin Islamic Boarding School. Lorong Taqwa no. 6 Banda Aceh. This study lasted for 49 days, it was started from the the first day until the last day which was 49 days, all chickens received tested treatment . This study began from May 1st to June 19th, 2018. This study used 100 male laying chicks (kalasan) strain Isa Brown produced by PT. Charoen Pokphand. The design of this study is a Completely Randomized Design (CRD) in vitro which was consisting of 4 treatments and 3 replications. Meanwhile in vivo which was consisting of 4 treatments and 5 replications. The in vitro treatment that was tried was the addition of as much elephant ginger rhizome extract (P1) 3%, (P2) 6%, (P3) 9% from 1 ml elephant ginger rhizome extract. In vivo tried treatment was the addition of elephant ginger rhizome extract (P1) 3%, (P2) 6%, (P3) 9% which was from the total amount of drinking water. The data were analyzed by using Analysis of Variance (ANOVA) and if there were significant differences between treatments, the analysis was continued by Duncan's Multiple Distance Test (Steel and Torrie, 1991). The observed parameter was inhibitory power of elephant ginger rhizome extract on *Escherichia coli* bacteria, meat cholesterol and percentage of abdominal fat. The results showed that the administration of rhizome of elephants rhizome (*Zingiber zerumbet*) had no significant effect ($P> 0.05$) on the growth of *Escherichia coli* bacteria an also had no significant effect ($P> 0.05$) as an additive feed on drinking water on percentage of abdominal fat in male laying hens. But descriptively it can reduce cholesterol levels of male laying hens.

Keywords: *Zingiber zerumbet*, Additive Feed, inhibitory power, male laying hens